

Wood Heaters: Impacts in Maine of EPA Draft Rule

A DEP Issue Profile

Maine's vast and productive forest is one of the most significant renewable resources in the country. In Maine, the forest products industry creates thousands of jobs for wood stove manufacturers, wood dealers, pellet manufacturers, foresters, loggers, stove and chimney dealers, and many more. Maine is advocating for reasonableness in this regulation such that newer, cleaner wood stoves are a benefit to the consumer and industry— with no compromise to heating ability, no increase in difficulty of operation, and which are not prohibitively expensive – so that actual health benefits are realized.

What the draft rule does not do:

The proposed rule would **not affect existing woodstoves** and other wood-burning heaters currently in people's homes. The proposal also would not apply to new or existing heaters that are fueled solely by oil, gas or coal, and it would not apply to outdoor fireplaces, fire pits, pizza ovens or chimineas.

In addition, EPA did not include new indoor fireplaces for regulation; however, it is seeking additional data and comments that could help the agency determine whether future standards for new fireplaces would be appropriate. EPA has a voluntary program that encourages manufacturers

to make cleaner-burning new fireplaces, and retrofits for existing fireplaces are available.



Why is EPA drafting a new rule?

Smoke from residential wood heaters contains fine particle pollution, also known as fine particulate matter or PM_{2.5}, along with other pollutants including carbon monoxide, volatile organic compounds (VOCs), black carbon, and air toxics such as benzene. Residential wood smoke can increase particle pollution to levels that pose serious health concerns, and in some areas constitutes a significant portion of the fine particle pollution in Maine.

The fine particles in smoke (PM_{2.5}) can get deep into the lungs, damaging the lungs, blood vessels and heart. People with heart, vascular or lung disease, older adults and children are the most at risk. The current federal New Source Performance Standard (NSPS) was established in 1988, and EPA wants to account for technological advances made in wood burning devices since then.

What does the current (1988) rule cover?

Wood stoves and some pellet stoves are covered under the current rule, which contains different standards for non-catalytic and catalytic stoves.

What does the draft rule propose?

The draft rule proposes more stringent particulate matter (PM) emissions standards for newly manufactured adjustable-rate woodstoves, pellet stoves, wood-fired hydronic heaters, forced-air furnaces, masonry wood heaters, and a type of previously unregulated woodstove known as a "single burn rate" stove.

Wood, Pellet & Single Burn Rate Stoves

- 1988 rule applies for *some* pellet stoves & all wood stoves and there is a different standard for catalytic and non-catalytic; single burn rate stoves were not included
- Draft rule applies to *all* pellet, wood and single burn rate stoves, and there is no distinction of emission standards between catalytic and non-catalytic units



- Draft rule proposes two compliance options (see below)
- Jøtul, a Maine manufacturer of wood stoves, meets the Washington State standard: 4.5 grams/hr. for non-catalytic stoves and averages 3.5 grams/hr across their 14 models
- Maine's four pellet manufacturers can meet standard for certification by Pellet Fuels Institute (required under draft rule)
- Approximately 94 pellet and wood stove retailers in Maine

EPA's First Proposed Option

	Existing EPA (1988 NSPS PM Emission Standard	Proposed Step 1 (Year 1) PM Emission Standard	Proposed Step 2 (Year 5) PM Emission Standard
Catalytic	4.1 grams/hr.	4.5 grams/hr. for both catalytic and non-catalytic	1.3 grams/hr. for both catalytic and non-catalytic
Non-Catalytic	7.5 grams/hr.		

EPA's Second Proposed Option

	Proposed Step 1 (Year 1) PM Emission Standard	Proposed Step 2 (Year 3) PM Emission Standard	Proposed Step 3 (Year 8) PM Emission Standard
Catalytic	4.5 grams/hr. for both catalytic and non-catalytic	2.5 grams/hr. for both catalytic and non-catalytic	1.3 grams/hr. for both catalytic and non-catalytic
Non-Catalytic			

Maine's Perspective:

In reality, catalytic and non-catalytic stoves are different and should have separate standards. EPA's proposed standards are based on test methods that are proposed to be changed. Manufacturers should not be forced to invest in expensive changes based on undefined and unproven test methods. The best route to realize health benefits is to replace pre-1988, less efficient stoves with new ones.



Wood-fired Hydronic Heaters & Forced Hot Air Heaters (aka Outdoor & Indoor Wood Boilers)

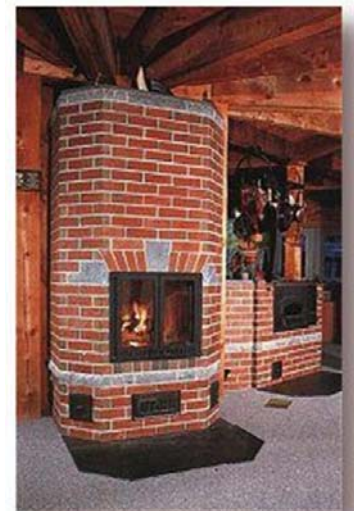
- There are no EPA rules on Outdoor or Indoor Wood Boilers and Furnaces at this time
- Outdoor Wood (pellets, chips and cord/logs) Boilers and Furnaces are regulated by DEP, Chapter 150
- Maine Energy Systems is an indoor pellet furnace manufacturer.
- Maine has approximately 7 pellet boiler installers.

Applicable PM Emission Standards:	EPA Step 1 (immediately)	EPA Step 2 (in 5 years)	Current Maine (Ch. 150)	Current Maine Advanced Tech
Outdoor Wood Boilers	0.32 lb/MMBtu	0.06 lb/MMBtu	0.32 lb/MMBtu	0.06 lb/MMBtu
Indoor Wood Boilers	0.32 lb/MMBtu	0.06 lb/MMBtu	None	None
Wood Furnaces	0.93 lb/MMBtu	0.06 lb/MMBtu	0.32 lb/MMBtu Outdoor only	0.06 lb/MMBtu Outdoor only

Masonry Heaters (aka Russian Fireplaces)

- Built on-site from scratch or kit; due to large mass, stores heat for a long time
- Not currently regulated by EPA or Maine
- Approximately six builders of masonry heaters in Maine—no one is considered a large manufacturer under the proposed rule.

Applicable PM Emission Standards:	Proposed Step 1 (Immediately)	Proposed Step 2 (In 5 years)
Large Manufacturers	0.32 lb/MMBtu	0.32 lb/MMBtu
Small Manufacturers	None	0.32 lb/MMBtu



Maine's Perspective:

Aligning national standards with Maine's for outdoor wood boilers is appropriate. Maine is concerned that the six month sell through provision is not enough time to sell out of stock manufactured before the compliance date. Builders also need a reasonable amount of time to make appropriate changes to the construction of Masonry Heaters. See additional comments on page four.

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The Department supports a rule that lowers emissions from wood burning devices and considers the substantial costs to manufacture new stoves, which would ultimately be passed on to consumers. A higher price tag deters homeowners from replacing older, less efficient devices and does little to reduce the amount of wood smoke in our air.

The Department is concerned with the lower (1.3 g/hr) level for wood, pellet and single burn rate stoves, as we are uncertain of a thorough evaluation of economic and real-life use considerations of devices by EPA. We are very concerned about having one standard/limit for catalytic and non-catalytic stoves. Each version has different advantages and disadvantages and

in reality are not the same type of stove.

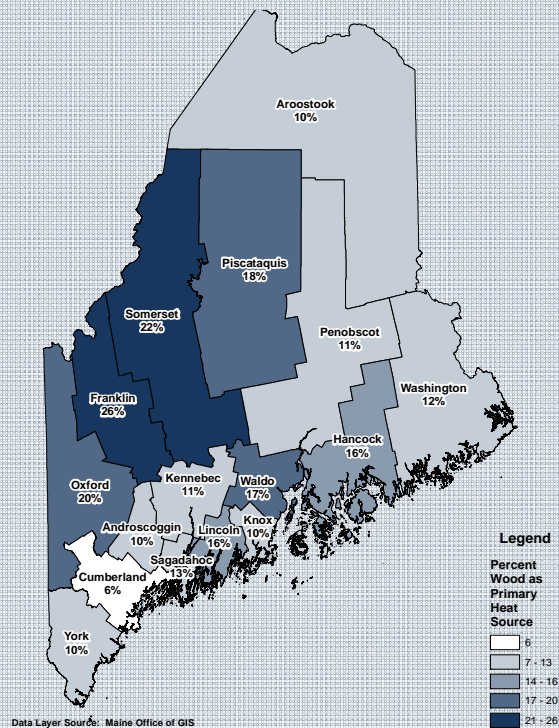
EPA's test methods do not depict real-life residential operation and application. For example, catalytic stoves are more efficient in test settings and when properly installed, operated and maintained—a rare occurrence according to dealers and wood stove maintenance professionals in Maine.

This draft rule creates a market that does not incentivize and actually discourages the removal of pre-1988 stoves, which are one of the primary sources of PM emissions in the country. **EPA would do better to recognize the success of buy-back programs and fund Maine's wood stove and outdoor boiler change-out programs.**

Woodstove Use in Maine

Maine Residential Woodsmoke Study (2008)

- 60-70% of residences surveyed have woodstoves that are 10-20 years old.
- Wood as a primary and secondary heating source is less prevalent in southern Maine (York & Cumberland Counties) and most prevalent in Aroostook County and Downeast areas.
- 15% use wood as primary heat; 25% use wood as supplemental heat
- 77% using a woodstove



Concerned about EPA's rule and want to protect Maine jobs? Submit comments to EPA!

Identify all comments with Docket ID No. EPA-HQ-OAR-2009-0734. Comments may be submitted online at www.regulations.gov; e-mail comments to a-and-r-docket@epa.gov; fax: to (202) 566-9744; or mail to Air and Radiation Docket and Information Center, Environmental Protection Agency, Mail Code 2822T, 1200 Pennsylvania Ave., NW, Washington, DC 20460. EPA will accept comments until May 5, 2014.